

Practice for Math in Daily Life Final

- 1) Find the vertex of $y = 3(x+1)^2 - 2$
- 2) What is the equation of the parabola $y = x^2$ after it is moved 5 units to the left?
- 3) Graph $y = -x^2 + 3$
- 4) I bought 20 yards of string and had to cut it into 60 equal sections for students. How many feet long was each section of string?
- 5) How many times larger is 0.05 than 0.00005?
- 6) I surveyed 2,150 people and 35% said that they prefer Crispix over Chex. How many people prefer Crispix?
- 7) Teachers get 15% off at Jo-Ann. If my order is \$45, how much money will I save with my discount?
- 8) If an item that is \$35.50 is 20% off. What is the sale price?
- 9) I got 12 wrong on the first test and only 7 wrong on the next test. What is my percent decrease in mistakes?
- 10) Describe the translation represented by the vector $\langle 3, -5 \rangle$
- 11) Find the vector that moves point B(7,3) to point A(1,5)

12) If a shape has points A $(-4, 2)$ B $(1, 3)$ and C $(5, -3)$, find the points after the shape has been reflected over the x-axis.

13) Write a rule to describe a reflection over the y-axis
 $(x, y) \rightarrow (\quad , \quad)$

14) How many seconds are in 13 days?

15) If I am running 3.6 miles per hour, how fast is that in feet per second?

16) Turn $\frac{28}{5}$ into a mixed number.

17) What is $\frac{3}{4}$ of 16?

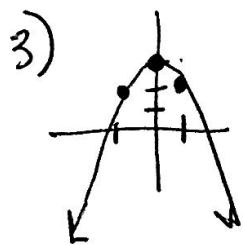
18) What is $7 \times 4\frac{1}{7}$?

$$1) a(x-h)^2+k \quad (-1, -2)$$

$$2) y = (x+5)^2$$

$$y = a(x-h)^2 + k$$

\uparrow left
 \downarrow right
 \uparrow up
 \downarrow down



$$4) \frac{20 \text{ yards}}{1} \mid \frac{3 \text{ ft}}{1 \text{ yd}} = 60 \text{ feet}$$

$$\frac{60 \text{ ft}}{60 \text{ sections}} = \boxed{1 \text{ ft per section}}$$

2* Added) What is the eq. of the parabola $y = x^2$ after it is moved 3 units right and 2 units down?

$$y = (x-3)^2 - 2$$

5) $\cdot \underbrace{0000}_{3 \text{ spaces}} 05 \xrightarrow{10^3} = 1000 \text{ times bigger}$

6) $0.35(2,150) = 752.5 \approx 753 \text{ people}$

7) $\cdot 15(45) = \$6.75$

8) $\cdot 80(35.50) = \$28.40$ or $\cdot 2(35.50) = 7.10$
 $35.50 - 7.10 = \$28.40$

9) $\frac{12-7}{12} = \frac{5}{12} = .41\bar{6} \Rightarrow \approx 42\%$

10) Move right 3 units and down 5 units

11) $(7, 3)$
 $\downarrow -6 \quad \downarrow +2$
 $(1, 5)$ $\langle -6, 2 \rangle$

12) Reflection over x \div $(x, y) \rightarrow (x, -y)$

$A'(-4, -2)$ $B'(1, -3)$ $C'(5, 3)$

13) $(x, y) \rightarrow (-x, y)$

14) $\frac{13 \text{ days}}{1} \cdot \frac{24 \text{ hrs}}{1 \text{ day}} \cdot \frac{60 \text{ min}}{1 \text{ hr}} \cdot \frac{60 \text{ sec}}{1 \text{ min}} = \boxed{1,123,200 \text{ seconds}}$

15) $\frac{3.6 \text{ miles}}{1 \text{ hr}} \cdot \frac{5,280 \text{ ft}}{1 \text{ mile}} \cdot \frac{1 \text{ hr}}{60 \text{ min}} \cdot \frac{1 \text{ min}}{60 \text{ sec}} = \frac{19,008}{3600} = \boxed{5.28 \text{ ft/sec}}$

16) $5^{3/5}$

17) $\frac{3}{4} \cdot \frac{16}{1} = 3 \cdot 4 = \boxed{12}$

18) $7 \times 4\frac{1}{7} = 7 \times 4 + 7 \times \frac{1}{7}$
 $= 28 + 1 = \boxed{29}$